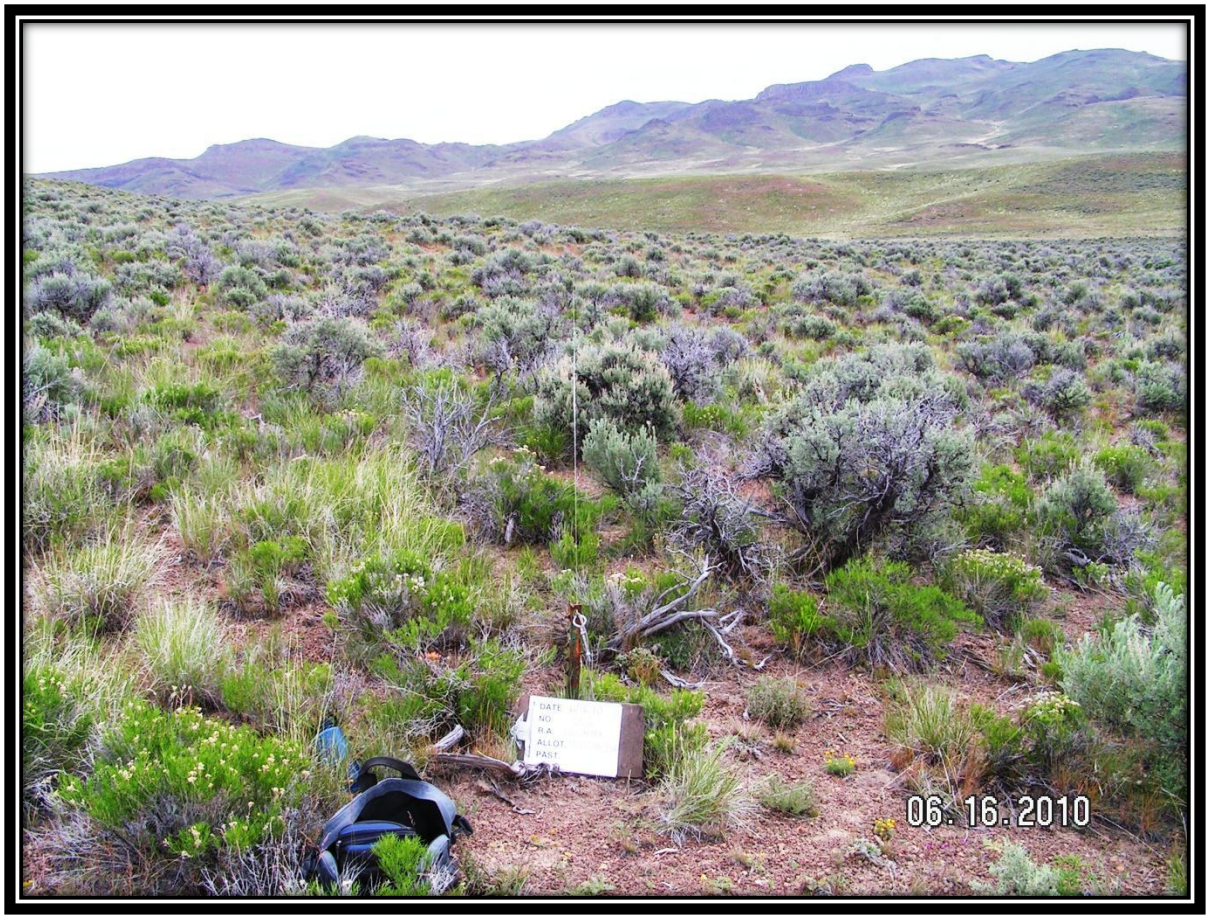
BUREAU OF LAND MANAGEMENT

ELKO DISTRICT
Tuscarora Field Office

NORTHEASTERN GREAT BASIN STANDARDS AND GUIDELINES ASSESSMENT

Mexican Field Allotment



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NEVADA Elko District, Tuscarora Field Office

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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1.0 Introduction

The Bureau of Land Management (BLM) grazing regulations at 43 CFR 4130.3-1(c) require that grazing permits issued by the BLM contain terms and conditions that ensure conformance with BLM regulations at 43 CFR 4180, which are the regulations under which the *Northeastern Great Basin Standards and Guidelines for Grazing Administration (1997)* were developed. Recently, the Tuscarora Field Office completed an assessment of the achievement of these standards on the Mexican Field Allotment. The results of this assessment are presented in this report. This assessment outlines the BLM's determination as to (1) whether these standards are being met, and, (2) if they are not being met, whether existing grazing management practices have contributed to their lack of attainment. The approved standards for rangeland health are as follows:

Standard 1. Upland Sites: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform.

Standard 2. Riparian and Wetland Sites: Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

Standard 3. Habitat: Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet life cycle requirements of threatened and endangered species.

Standard 4. Cultural Resources: Land use plans will recognize cultural resources within the context of multiple-use.

Standard 5. Wild horses and burros exhibit characteristics of a healthy, productive, and diverse population. Age structure and sex ratios are appropriate to maintain the long-term viability of the population as a distinct group. Herd management areas are able to provide suitable feed, water, cover and living space for wild horses and burros and maintain historic patterns of habitat use. This standard does not apply to this allotment. There are neither wild horse herd management areas nor wild horses within the Mexican Field Allotment.

2.0 Background and Current Grazing System

One livestock permittee, authorization 2701590, is authorized to graze livestock within the Mexican Field Allotment. An allotment evaluation was completed on January 28, 1994 and a Final Multiple Use Decision (FMUD) implementing the management actions identified in the evaluation was signed on May 18, 1994. The FMUD allows for early grazing three years out of four, with late or hot season use limited to no more than one year out of four. The current grazing system for the Mexican Field also incorporates use within the Cotant Allotment (See Table 2). Although the FMUD outlines dates of April 15th to May 31st in years the allotment is grazed early, the early grazing treatment actually occurred between May and late June/early July because of snow cover and access considerations. The active preference in the allotment is 546 AUMs and the total preference remains at 546 AUMs.

Table 1. Permitted Use for the Mexican Field Allotment

Allotment	Livestock Number	Livestock Kind	Permit Dates	AUMs
Mexican Field	111	Cattle	4/15-9/10	546

Table 2. Mexican Field Allotment Grazing System

Pasture	Target AUMs	Year #1	Year #2	Year #3	Year #4
Mexican Field	546	4/15-5/31	4/15-5/31	4/15-5/31	7/27-9/10
Cotant Seeding*	462	7/3-8/26	7/3-8/26	6/1-7/26	6/1-7/26
Cotant Native*	258	6/1-7/2	6/1-7/2	7/27-8/26	5/1-5/31

* Cotant Seeding is a separate allotment that is used in conjunction with the Mexican Field Allotment to complete a rotational grazing system.

Since the FMUD was issued in 1994, no formal evaluations or assessments of resource conditions in the allotment have been completed. However, a draft Standards and Guidelines Assessment was issued in 2002. Monitoring data collected since 1994 indicate that existing management is favorable and has provided for the attainment of multiple use objectives.

3.0 Allotment Description, Resource Values, and Uses

The Mexican Field Allotment is located approximately 38 miles north of Elko, Nevada. The allotment is comprised of 3,019 acres of which 2,991 acres are public and the remaining 28 are private. The East Fork of Beaver Creek bisects the allotment. The area consists of gently rolling hills to moderately steep mountainous terrain with elevations varying from 5,500 feet to 6,500 feet. The allotment is one large pasture consisting of meadows and sagebrush-rabbitbrush types in the lowlands and mixed types of big sage, low sage and perennial grasses occurring in the foothills. During the 2006 Charleston Fire the majority of the allotment was burned however there are remaining intact stands of native vegetation. Rehabilitation efforts were completed after the Charleston Fire.

The entire allotment is identified in the 1987 Elko Resource Management (RMP) as being deer yearlong habitat. The RMP also identifies 14 miles of the East Fork of Beaver Creek as high priority stream habitat. Portions of the East Fork of Beaver Creek occur in the Mexican Field Allotment.

The Elko Resource Management Plan categorized the Mexican Field Allotment as a class "I", or Improve, allotment. Characteristics of Category I allotments were:

- Existing range improvements are inadequate. Redesign and/or removal of existing projects and development of new ones are required.
- The potential is moderate to high for a positive economic return on public investment for potential new range improvements and vegetative manipulations. There is potential for high cost effectiveness.
- There are one or more major resource conflicts present and they are responsive to or correctible through management.
- The land ownership objective states that when called for in the planning system, the public lands will be retained/consolidated to meet future management goals.
- Livestock distribution is poor to fair. Not all of the areas are being used proportionately. The current level of use by all grazing animals may exceed what the resource can support.
- The present activity plan if implemented is deficient and requires modification to resolve resource conflicts such as range improvements. There are physical problems that inhibit implementation of a new plan at the present time if one is required.
- The current ecological range and watershed condition is unsatisfactory. The primary concern is with stabilizing any downward trends and improving them where cost effective. The average climax potential is moderate to high.

3.1 Soils

The Mexican Field Allotment is characterized by steep to gently rolling hills. Soils are dominated by the Bregar-McIvey-Cotant Association (Elko County Central Survey). Depth to bedrock ranges from an average of 5 inches near hilltops to over 60 inches on lower hillslopes. The bedrock is composed primarily of rhyolite. Soil surface horizons are very gravelly to very cobbly loam. Subsoils are composed of clay to very gravelly clay loams. Available water holding capacity averages a low of 0.5 inches near hilltops to 7.3 inches on lower and concave

hillslopes. Soils are generally rated as poor for rangeland seedings either because of too many large stones and/or droughty or limited soil depth.

The soils are moderately deep to deep and well drained. Surface soils are moderately fine to medium textured and normally more than 10 inches thick to subsoil or underlying material. The available water capacity is low to moderate and some soils are modified with high volumes of rock fragments through the soil profile. Runoff is slow to moderate and the potential for sheet and rill erosion varies with slope gradient.

3.2 Vegetation

The vegetation community within the Mexican Field Allotment is dominated by bluebunch wheatgrass (*Agropyron spicatum*), Thurber's needlegrass (*Stipa thurberiana*) and big sagebrush (*Artemisia tridentata*). Other species found within the allotment include Nevada bluegrass (*Poa nevadensis*), antelope bitterbrush (*Purshia tridentata*), and Douglas rabbitbrush (*Chrysothamnus viscidiflorus*). Additional grass species are present in limited numbers throughout the allotment. Utilization objectives for the key species in the Mexican Field Allotment were established in the Comex Allotment Management Plan as follows:

Table 3. Key Species and Utilization Objectives

Key Species	Utilization Objective
Bluebunch Wheatgrass (AGSP) Thurber's Needlegrass (STTH2)	50%

3.3 Invasive, Non-Native Plant Species

The BLM defines an invasive weed as, "a non-native plant that disrupts or has the potential to disrupt or alter the natural ecosystem function, composition and diversity of the site it occupies. Its presence deteriorates the health of the site, it makes efficient use of natural resources difficult and it may interfere with management objectives for that site. It is an invasive species that requires a concerted effort (manpower and resources) to remove from its current location, if it can be removed at all" (BLM National List of Invasive Weed Species of Concern). Invasive and non-native plant species may spread from infested areas by people, equipment, livestock, wildlife, and winds. They often exhibit aggressive growth and have the potential to seriously degrade the economic and ecological values of natural resources. Under Executive Order 13112, it is the policy of the land management agencies to prevent introduction of noxious weeds and invasive non-native species and to control their impact (EO 13112, 1999). Nevada Revised Statute 555.005 defines noxious weeds as plants which are likely to be "detrimental or destructive and difficult to control or eradicate."

3.3.1 Category A Weeds

These weeds are not found or are limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; and control is required by the state in all infestations (NDOA 2005).

There are no known Category A Weeds within the Mexican Field Allotment.

3.3.2 Category B Weeds

These weeds are established in scattered populations in some counties of the state; actively excluded where possible; actively eradicated from nursery stock dealer premises; and control is required by the state in areas where populations are not well established or previously unknown to occur (NDOA 2005).

There are no known Category B Weeds within the Mexican Field Allotment.

3.3.3 Category C Weeds

These weeds are currently established and widespread in many counties of the state with abatement at the discretion of the state quarantine officer (NDOA 2005).

Within this allotment BLM is aware of five noxious weed infestations: three whitetop (*Cardaria draba*) sites and two Canada thistle (*Cirsium arvense*) sites.

3.4 Riparian and Wetlands

The Mexican Field Allotment supports riparian and wetland habitats on public lands including about two miles of the East Fork of Beaver Creek, about one mile of Cabin Creek and several seeps and spring/spring complexes. The East Fork of Beaver Creek is identified as a potential recovery stream for Lahontan cutthroat trout (LCT), a federally listed threatened species, in the LCT Recovery Plan (U.S. Fish and Wildlife Service 1995). In the early 1980's, BLM constructed small exclosures on three of the identified springs on public lands. At least one spring located on public lands remains unfenced.

Although conversation records suggest LCT may have been present in the East Fork of Beaver Creek in the early 1970's (BLM file data), only nongame fish species including suckers *(Catostomas* species), redside shiners *(Richardsonius egregious)* and Lahontan speckled dace (*Rhinichthys osculus*) are currently found in either the East Fork or Cabin Creek. Dominant riparian plants for stream and riparian habitats in the Mexican Allotment include several species of willows (*Salix* species), Nebraska sedge (*Carex nebrascensis*), baltic rush (*Juncus balticus*) and spikerush (*Eleocharis* species).

3.5 Wildlife, Special Status Species including Threatened and Endangered Species, Migratory Birds and Special Status Plant Species

3.5.1 Wildlife

Big Game Species

The Mexican Field Allotment provides habitat for mule deer, elk and pronghorn on a seasonal or yearlong basis. Upper elevation areas primarily provide mule deer summer habitat while lower to mid elevation areas generally provide intermediate (spring and fall) habitat. Elk numbers have increased over the past several years. The allotment provides pronghorn summer range.

Other Game and Nongame Wildlife

There are approximately 350 species of vertebrate wildlife which occur in northeastern Nevada. The allotment provides habitat for many of these species on a seasonal or yearlong basis in association with sagebrush steppe habitat, and seasonally-flooded vegetated playa and riparian habitat types. The table shown in Appendix 1 (see BLM notation) includes a list of wildlife species that have the potential to occur on the allotment on a seasonal or yearlong basis.

3.5.2 Special Status Species

Actions that may affect species that are Federally-listed, or are proposed for listing as threatened or endangered, are subject to consultation or conference under Section 7 of the Endangered Species Act. Nevada BLM policy is to provide State of Nevada Listed Species and Nevada BLM Sensitive Species with the same level of protection as is provided for candidate species as shown in BLM Manual 6840.06C. Nevada protected animals that meet BLM's 6840 policy definition are those species of animals occurring on BLM-managed lands in Nevada that are: (1) 'protected" under authority of Nevada Administrative Codes 501.100 – 503.104; (2) have been determined to meet BLM's policy definition of "listing by a State in a category implying potential endangerment or extinction," and (3) are not already included as a federally listed, proposed, or candidate species (Appendix 3). See Appendix 3 for BLM policy (516 DM 6840) definitions for special status species.

3.5.3 Federally Listed, Proposed and Candidate Species (Terrestrial Species)

There are no known terrestrial wildlife species that are listed as threatened or endangered under the Endangered Species Act (Appendix 3).

Greater Sage Grouse

The greater sage grouse is a candidate species as of March 5, 2010 (see paragraph and footnote below and Appendix 3). This species could be considered an "umbrella species" where positive or negative impacts to their habitat generally affect the habitat for other sagebrush-obligate species or other species that utilize similar upland and riparian/meadow habitat.

On March 5, 2010, the U.S. Fish and Wildlife Service announced Proposed Rules* in the Federal Register for the notice of 12-month findings for petitions to list the greater sage grouse as a threatened or endangered species. The Fact Sheet for this finding iterated the following, *"After thoroughly analyzing the best scientific and commercial information available, the Fish and Wildlife Service has concluded that the greater sage-grouse warrants protection under the Endangered Species Act. However, the Service has determined that proposing the species for protection is precluded by the need to take action on other species facing more immediate and severe extinction threats. As a result, the sage-grouse will be added to the list of species that are candidates for Endangered Species Act protection. The Service will review the status of the sage-grouse annually, as we do all candidate species, to determine whether it warrants more immediate attention."* The Proposed Rules were formally announced in the Federal Register on March 23, 2010 under the following reference: **13910 Federal Register** / Vol. 75, No. 55 / Tuesday, March 23, 2010 / Proposed Rules.

[* The following is stated for this finding in the Federal Register, *"This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules."*]

The allotment is within the North Fork Sage Grouse Population Management Unit (PMU) in Nevada. PMUs are being considered under the Governor's Nevada Sage Grouse Conservation Strategy by the Northeastern Nevada Stewardship Group as part of sage grouse conservation planning efforts underway for the Elko District. Shrub cover and associated herbaceous plants in the understory is vital as a forage and cover component for sage grouse. Evaluation of habitat values and the possibilities to improve them are considered through this conservation effort.

The lek areas form undefined core areas for associated nesting/early (upland) brood-rearing, summer/late (riparian-meadow) brood-rearing and fall-winter habitat areas. In addition, there could be sage grouse movements into the area from outside the project area as individual or groups of grouse seek seasonal use areas. See Appendix 3 for lek definitions. There are two leks on the allotment and four leks approximately 1.1 to 2.35 miles from the allotment boundary. All have been affected by the 2006 Charleston Fire. Two of the six leks affected by the wildfire were active during the Spring 2010 lekking period during a one-morning-in-time aerial survey. These two leks, within 1.1 to 1.8 miles from the allotment boundary, were noted to be in a burn mosaic. The two leks on the allotment and two other leks off the allotment were not active during this same survey. The wildfire burned in close proximity (100 yards or less) to the lek that is 2.35 miles away from the allotment but left the lek intact, and area to the east burned in a mosaic, with one grouse flushed near the lek.

The allotment provides other sage grouse habitat including fall-winter, nesting, early (upland) and late (meadow-riparian) brood habitat. Recent wildfires from 2000 to 2006 have negatively impacted tens of thousands of acres of sage grouse habitat on the allotment and adjoining allotments; however, a high percentage of these same burn areas have been artificially-seeded with native shrub, grass and forb species as part of wildlife habitat rehabilitation efforts.

Photo 2. Sagebrush Recovery after 2006 Charleston Fire east of the Mexican Field Allotment. August, 2011.

Additional shrub seeding efforts are being considered on the Mexican Field Allotment (and other affected areas) to augment seeding efforts completed after the 2006 Charleston Fire.

Areas of riparian/meadow habitat are important for brood-rearing on the allotment, especially during the summer and early fall as forbs desiccate (dry out) on upland areas. Forbs are an essential part of the diet of young sage grouse. Hen sage grouse that nest at lower elevations outside the allotment area could move their broods considerable distances seeking riparian/meadow areas that provide succulent forbs at higher elevations; this potentially includes areas on the allotment.

3.5.4 BLM Sensitive Species (Terrestrial Species)

Appendix 4 lists and includes narratives for the BLM and State of Nevada wildlife species of concern that might occur in the vicinity of the proposed action. The exceptions for narratives are for pygmy rabbits and golden eagles shown below as "focus species." The lists are based on the Nevada BLM-Information Bulletin No. NV-2003-097 (July 29, 2003) and additional input from NDOW.

3.5.5 Sensitive Mammals

Pygmy Rabbits

Pygmy rabbits are a BLM Sensitive Species that were petitioned for listing as threatened or endangered under the Endangered Species Act. On May 20, 2005, the U.S. Fish and Wildlife

Service (USFWS) announced a 90-Day Finding in the Federal Register indicating that, "… the petition does not provide substantial information indicating that listing the pygmy rabbit may be warranted." On September 29, 2010, the USFWS informed the public about a press release regarding a second petition with the following excerpt, *"The U.S. Fish and Wildlife Service (Service) will announce tomorrow, it has completed a status review, or 12-month finding, of the pygmy rabbit (Brachylagus idahoensis) and concluded it does not warrant protection under the Endangered Species Act (ESA) in California, Nevada, Oregon, Idaho, Utah, Wyoming, and Montana. The status review was undertaken after the Service determined that a petition to list the pygmy rabbit under the ESA presented substantial information in January 2008, and that listing of the species may be warranted."* The 2005 and 2010 findings do not downplay the need to conserve, enhance or protect pygmy rabbit habitat. The areas on the allotment with connected blocks of intact sagebrush provide potential seasonal habitat for pygmy rabbits.

Pygmy rabbits are found in a variety of vegetation types that include big sagebrush that are suitable for creating their burrow system. Although no formal surveys have been completed on the allotment, they have either been observed, or their active burrows have been observed in recent years within habitat characterized by the Wyoming, basin, mountain and big sagebrush-bitterbrush vegetation types on the Elko District. The East Fork Beaver Creek riparian area and surrounding areas with intact sagebrush cover would be considered "high potential" suitable habitat. The NDOW wildlife records as of 2009 do not indicate documentation of pygmy rabbits on the allotment or immediate surrounding areas. The 2006 Charleston Fire impacted a high percentage of sagebrush vegetation types that provide potential habitat on the allotment. These impacts could be long-term pending natural sagebrush establishment, or accelerated by any future proposed reestablishment by artificial sagebrush/other shrub seeding efforts in addition to the 297 acres seeded on drainage areas, including potential pygmy rabbit habitat, after the fire.

3.5.6 Nevada BLM Sensitive Birds

Golden Eagle

This species is protected under the 2007 Bald and Golden Eagle Protection Act. A nest site was documented by NDOW on the allotment in 1972. Other areas on the allotment and other mountainous terrain areas immediately surrounding the allotment, provide nesting and foraging habitat where prey species are primarily small mammals.

3.5.7 Migratory Birds

On January 11, 2001, President Clinton signed the Migratory Bird Executive Order 13186. It directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act and to conserve migratory birds. Migratory bird species that may occur in the habitat types of the HMAs are listed at Appendix 2. This listing is from the 1999 Nevada Partners in Flight Bird Conservation Plan. The Nevada Partners in Flight Bird Conservation Plan identifies bird species associated with each of these ecotypes (Appendix 2).

3.5.8 Special Status Plant Species

There are no known threatened, endangered, candidates or BLM Sensitive Plant Species on the allotment.

3.6 Cultural Resources

In order to comply with the National Historic Preservation Act (NHPA), as implemented using the Protocol between the BLM and State Historic Preservation Office (SHPO) in Nevada, the BLM must consider effects to historic properties (i.e., cultural resources eligible for the National Register of Historic Places [NRHP]) for all undertakings requiring permits, including livestock permit renewals.

Within the Mexican Field Allotment, only five archaeological sites (26EK5093, 26EK5096, 26EK5097, 26EK5098, 26EK12685), are known to exist. Four of those were found during inventories completed prior to 1983 (BLM 1-170 and – 724) and all were recently evaluated for the National Register of Historic Places (BLM 1-2901) but none found to be eligible. A records survey archaeological work within a ten mile radius of the surrounding area revealed that the vast majority of archaeological sites occurred within 250 meters of streams and springs. Based upon that fact, recent Class III cultural inventory targeted areas near streams and springs and vastly expanded the number of acres inventoried in the allotment.

The inventory covered 625 acres (about 20% of the allotment and all on public lands). That survey only recorded one previously unknown historic site, nineteen isolated finds, and rerecorded 4 previously known prehistoric cultural properties. This survey incorporated targeted inventorying of areas around streams and springs as well as examining areas away from water to examine if occupation patterns paralleled that of the surround area as expected. Prehistoric sites were found only to be located within 100 meters of water within the inventoried areas of the allotment.

As part of the recent inventory, an evaluation of cattle grazing and range improvements impacts to historic properties was conducted. Evidence of grazing and impacts arising from cattle trampling were observed at all of the documented sites. These impacts were relatively minor and likely no more a contributing factor to the degradation of historic properties than natural forces. Unfortunately, previous documentation of the 4 known sites did not mention the degree to which cattle had impacted the site at the time they were recorded leaving no baseline data to compare present site condition with past. Based on artifact descriptions, it appears that sites in the Mexican Field Allotment have only been minimally adversely impacted due to cattle trampling since they were originally recorded. The rerecording of the sites yielded similar and in some cases greater number of artifacts then when first inventoried in the 1980s. In the cases of range improvements within this allotment, all have been inventoried and evaluated in terms of their effects upon cultural resources and found to have no impact.

3.7 Water Quality

State water quality criteria outlined in Nevada administrative code (NAC) 445A.121 apply to water resources within the Mexican Field Allotment. Numerical water quality standards based on a variety of beneficial uses including aquatic life, recreation, municipal and domestic supply, and irrigation apply to Class B water sources on tributary rule to the North Fork Humboldt River. Numerical standards would apply to the East Fork Beaver Creek and Cabin Creek within the Mexican Allotment. Typically surface hydrologic connection between these tributaries and the Humboldt River is limited during normal flow condition.

The East Fork of Beaver Creek and Cabin Creek - including the portion that passes through the Mexican Allotment – were included in the Nevada's 2006 303(d) list of impaired waters (NDEP 2006). The springs and seeps on public lands in the Mexican Field Allotment are unclassified waters. Unclassified waters are waters which the State of Nevada has not designated beneficial uses, and therefore has not established specific water quality standards. Unclassified waters have minimum standards applicable to all waters of the state (445A.123).

4.0 Data Summaries

There is one livestock key area (M001) within the Mexican Field Allotment. The key area is located within an intact sagebrush community that was not affected by the 2006 Charleston Fire. The same key area (DS-T-87-22) is used to collect wildlife habitat monitoring data as well. Key areas are study locations established in an allotment within the dominant ecological site(s) to monitor changes to vegetation species, soils, and other changes due to management actions.

4.1 Vegetation and Livestock Data

Table 4. Key Area Utilization

Year	Average Utilization Bluebunch Wheatgrass (AGSP)	Average Utilization Thurber's Needlegrass (STTH2)
2011	1%	2%
2010	5%	17%
2000	18%	9%
1999	15%	19%
1998	7%	6%
1997	18%	19%

Table 5. Summary of Point Sampling Cover Data

Key Area	Year	Basal Cover	Canopy Cover	Total Vegetative Cover	Litter	Bare Ground	Rock	Cryptogrammic Crust
M001	2002	13%	16%	29%	26%	29%	13%	3%
M001	2010	10%	16%	26%	11%	62%	0%	1%

Table 6. Actual Use Summary

Year	Actual Use (AUMs)
2011	
2010	458
2009	290
2008	Closed
2007	Closed
2006	322
2005	147
2004	233
2003	379
2002	376
2001	467
2000	No Data
1999	335
1998	380
1997	562
1996	Non-Use
1995	No Data
1994	No Data

4.2 Riparian Habitat Data

4.2.1 Stream Surveys

East Fork Beaver Creek

Data collected by BLM and contractors at stream survey stations S-8 and S-9 (refer to Map 2) in 1988, 1996 and 2008 show a pattern of improving habitat conditions on the East Fork of Beaver as a result of implementation of the 1994 FMUD.[1] Photographic comparisons between 1985 and 2007 also show similar trends in improvement (Photos 1 and 2). Data from 1988 represent the most recent baseline information available prior to the change in management. In 1988, the riparian condition class (RCC) (represented by the average of streambank cover and streambank stability) was rated as poor (48% of optimum) indicating streambanks were largely unstable and streambank cover was limited. Measurements recorded for percent desirable streambotton substrates, percent quality pools and stream width to depth ratio in 1988 also indicate poor conditions in the form of high sediment loads, absence of quality pools and a wide shallow channel profile. By 1996, almost all measured parameters (with the exception of pool quality) showed improvement. By 2008, all key parameters improved to the point where the stream can now considered being in good to excellent condition. The stream channel is narrow and deep (as indicated by a decrease in the width to depth ratio over time), while streambanks are stable and well vegetated by woody and herbaceous riparian plant

[1] Data for stream survey station S-10 are not available for all years and are not therefore included in the analyses.

communities. The East Fork of Beaver Creek also now supports quality pool habitat which is especially important for fish.

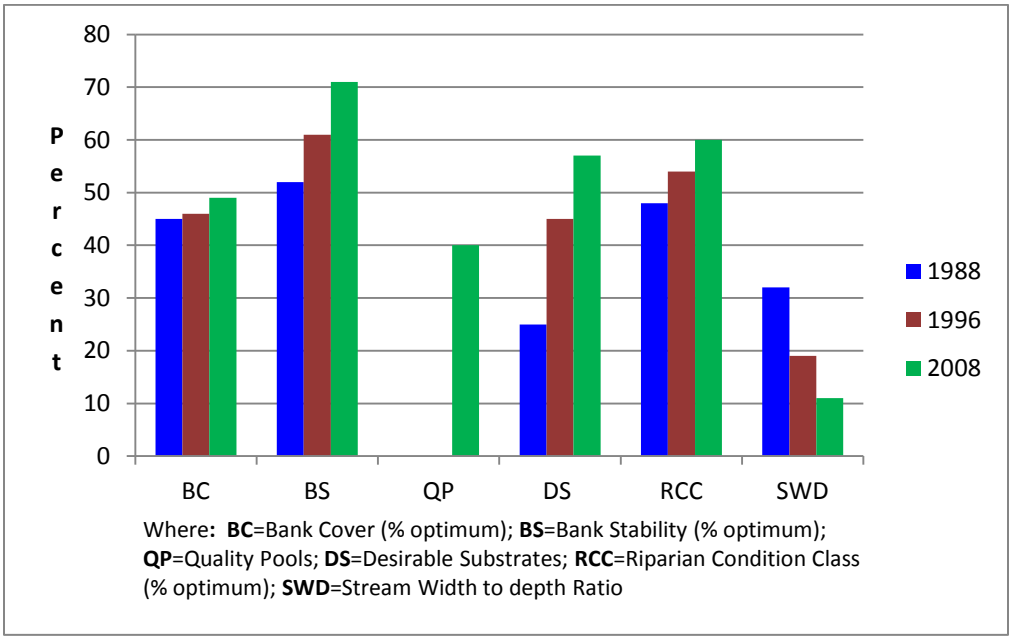

Figure 1. Changes in key stream and riparian habitat parameters recorded for the East Fork of Beaver Creek in the Mexican Field between 1988 and 2008. Techniques are from BLM (2002).

Photo 1. East Fork of Beaver Creek within the Mexican Field Allotment. August, 1985.

Photo 2. East Fork of Beaver Creek within the Mexican Field Allotment. August, 2011.

Additional stream and riparian habitat parameters are available for comparison on the East Fork of Beaver Creek between 1996 and 2008 (these parameters were not part of the 1988 stream surveys) (Table 7). With the exception of embeddedness (a measure of whether or not substrates are embedded in fine sediments), all other measured parameters showed improvement. The decrease in bank angle (desirable for this channel type) as well as the increase in bank undercut and shorewater depth indicate improved streambank development and long-term bank stability. The riparian zone has also increased in both extent and effectiveness as evidenced by an increase in woody vegetation overhanging the stream channel and by an increase in total width.

Table 7. Changes in stream and riparian habitat parameters recorded for the East Fork of Beaver Creek in the Mexican Field Allotment between 1996 and 2008.[1]

Parameter	1996	2008
Streambank Angle (°)	146	112
Steambank Undercut (ft.)	0.05	0.1
Shorewater Depth (ft.)	0.10	0.15
Woody Vegetation Overhanging Streambank (ft.)	0.0	0.8
Total Riparian Zone Width (ft.)	7.0	11.1
Embeddedness (percent surface of gravel, rubble or boulder covered by fine sediment)	25-50	50-75

[1]Data are from stream survey stations S-8 and S-9. Techniques are from BLM (2002).

Cabin Creek

Although comparative data are limited for Cabin Creek, stream surveys conducted by BLM at stream survey stations S-1 and S-2 (refer to Map 2) in 1980, 1999 and 2007 also show a pattern of improving conditions since implementation of the 1994 FMUD (Figure 2). Data from 1980 represent most current baseline information available prior to a change in management. Streambank cover and stability were extremely poor in 1980 but showed improvement by 1999. By 2007, the RCC (average of bank cover and bank stability) had improved to a rating of excellent (71% of optimum).

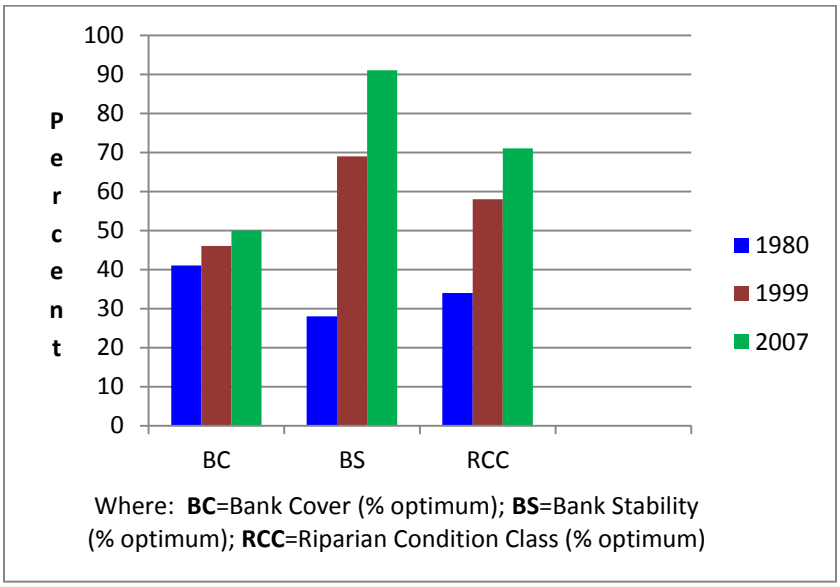

Figure 2. Changes in key stream and riparian habitat parameters recorded for Cabin Creek in the Mexican Field Allotment between 1980 and 2007. Techniques are from BLM (2002).

4.2.2 Functioning Condition Assessments[2]

Lotic (flowing water) Riparian Habitats

Functioning conditions assessments were completed for the majority of the East Fork of Beaver Creek and portions of Cabin Creek on public land in the Mexican Field Allotment in 2011.

The majority of the East Fork of Beaver Creek was rated as being in proper functioning condition (PFC). Floodplain areas and streambanks are stable and well-vegetated with willows, sedges and rushes (Figure 1). A limited portion of the stream was rated as functional-at-risk with an upward trend primarily as a result of past channel entrenchment caused by severe flooding in 2005 and 2006. However, even in these areas, floodplains are becoming rehydrated.

[2] Functioning conditions assessments of riparian areas are based on techniques BLM (1998) and BLM (1999, Revised 2003). Riparian areas are considered to be in proper functioning condition (PFC) when adequate vegetation, landform, or debris is present to dissipate energy; filter sediment and aid floodplain development; capture and store water; and, to provide for greater biodiversity.

Cabin Creek was rated as functioning-at-risk, with an upward trend. For the most part, floodplains are stable and well vegetated, although in some areas, plant species present do not indicate maintenance of riparian-wetland soil characteristics (Figure 2). However, these areas are limited in extent and are becoming increasingly dominated by wetland plant species.

Photo 3. East Fork of Beaver Creek, Mexican Field Allotment. August, 2011.

Photo 4. Cabin Creek, Mexican Field Allotment. August, 2011.

Overall, data suggest recovery is accelerating on both the East Fork of Beaver Creek and on Cabin Creek. Reasons are thought to include implementation of the current grazing system in

1994, fire closure rest in 2007 and 2008 and moisture conditions favorable to plant growth in recent years.

Lentic (standing water) Riparian Habitats

Data available for seeps and springs in the Mexican Field Allotment indicate lentic areas are in PFC (Table 8). Assessments indicated all four sites evaluated are stable and well vegetated. Inspections of the two East Side Spring exclosures in 2011 indicated these fences are intact and effective at excluding livestock.

Table 8. Summary of functioning condition assessments for lentic riparian habitats in the Mexican Field Allotment.

Lentic Riparian Area	Status	Date	Functioning Condition
East Side Spring #1	Exclosure	2002	PFC
East Side Spring #2	Exclosure	2002	PFC
West Side Spring #3	Exclosure	2002	PFC
Mexican Spring	Unfenced	2011	PFC

4.2.3 Riparian Utilization Studies

Information on riparian stubble height and willow utilization studies has been collected at stream survey stations on the East Fork of Beaver Creek and Cabin Creek since 1997. Although results are variable, there appears to be a trend towards decreasing impacts, especially in terms of grazing use on willows (Table 9). As willows and other species become taller and denser, stream channels and associated floodplains are becoming increasingly armored.

Table 9. Summary of livestock impact monitoring for the East Fork of Beaver Creek and Cabin Creeks between 1997 and 2011. Data are from public lands in the vicinity of S-9 and S-10 on the East Fork of Beaver Creek and S-1 on Cabin Creek (refer to Map 2).

Date	Ave. Riparian Herbaceous Stubble Height (in)[1]		Ave. Willow Utilization (% of current year's growth)[2]	
	East Fork Beaver Creek	Cabin Creek	East Fork Beaver Creek	Cabin Creek
8/12/97	3.5	nd[3]	79	nd
10-9-98	6.0 – 8.0 (estimated)	Similar to East Fork	Moderate to heavy (estimated)	Similar to East Fork
10-25-99	Slight to light (estimated)	nd	Slight (estimated)	nd
11-09/01	4.0	nd	70	nd
8/16/02	6.0	nd	30.5	nd
7/9/04	3.0 (estimated)	4.0 – 5.0 (estimated)	Light to moderate (estimated)	Light to moderate (estimated)
722/05	3.0	Moderate (estimated)	57	Moderate (estimated)

Date	Ave. Riparian Herbaceous Stubble Height (in)[1]		Ave. Willow Utilization (% of current year's growth)[2]	
	East Fork Beaver Creek	Cabin Creek	East Fork Beaver Creek	Cabin Creek
7/25/06	1.5	2.0	20	nd
7/28/09	9.0	nd	Slight (estimated)	nd
7/12/11	9.5	8.0	Not detectable	Not detectable

[1]Rounded to nearest ½ inch. Techniques are from: BLM (1996).
[2]Techniques are from the Key Forage Plant Method (Nevada Rangeland Task Group 1984) where 1-20%=Slight; 21-40%=Light; 41-60%=Moderate; 61-80%=Heavy; 81-100%=Severe.
[3]nd= no data.

4.3 Wildlife Data

4.3.1 Wildlife Habitat Condition Monitoring Summary

Photo 5. Bitterbrush on the Mexican Field Allotment. August, 2011

The single wildlife key area (DS-T-87-22), which also serves as the range key area, is characterized by a Wyoming big sagebrush vegetation type, with the ridge area directly above the transect interspersed with big sagebrush-bitterbrush vegetation type. The key area was originally established to monitor summer range habitat condition for mule deer, however data collected at the key area can be used to indicate habitat condition for a number of key species including sage grouse. With the exception of scattered, small islands of unburned vegetation, the entire allotment was impacted by the Charleston Fire in 2006. The key area is located in

one of these islands of unburned habitat and the site is characteristic of the majority of the unburned habitat with the allotment. Wildlife monitoring data, including line intercept, vertical cover, and browse form and age class was collected at this key area in 1987, 1992, 2002 and 2010. The results are summarized in Appendix 5. Disturbance/interference factors (fencing hazards) were documented in 2002, 2007 and 2010.

Vegetative Composition, Diversity and Cover - Line intercept studies provide a method for collecting vegetative cover (canopy and basal cover) and shrub, grass and forb species composition data. The "droop height" of herbaceous plants that could potentially provide lateral nesting cover for sage grouse was recorded in 2010.

Shrub Height, Foliar Cover and Condition - Vertical cover data provides a way to evaluate changes in vegetation structure and helps determine whether cover is adequate for wildlife species. Shrub height measurements were also recorded on the transect in 2010. Browse form and age class data are used to determine whether overuse is occurring on important browse species and whether age class diversity is providing for the needs of the wildlife species and is adequate to maintain the health of the vegetative community.

These types of information shown above can be used, along with additional monitoring data such as herbaceous utilization and ecological status condition to make determinations regarding the quality of habitat the area is providing for wildlife species, including sage grouse and mule deer. Scientific references (Greg 1994, Winward 1991 and Connelly et. al, 2000) were also used to help make any determinations on sage grouse habitat quality.

Sage Grouse

Habitat management for sage grouse was emphasized in the 1987 Elko Resource Management Plan-Rangeland Program Summary. Sage grouse are considered an "umbrella species" where maintenance or improvement of their habitat also helps to maintain or improve the habitat of many other wildlife species that are dependent ("sagebrush obligates") on sagebrush habitat or otherwise utilize these areas on a yearlong or seasonal basis.

Specific objectives for sage grouse habitat in terms of vegetative composition were not established in the Elko Resource Management Plan; however, the Bureau of Land management in Nevada has established interim sage grouse management guidelines (Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada). These guidelines were based on Western Association of Fish and Wildlife Agencies (WAFWA) draft guidelines and Oregon Bureau of Land Management sage grouse management guidelines. These guidelines outline optimum ("good") habitat conditions based on WAFWA habitat descriptions by life cycle for sage grouse and other pertinent research, and provide a basis for evaluating habitat conditions, taking into account actual site potential. The BLM signed a Memorandum of Understanding with other Federal agencies and WAFWA to consider these guidelines in the land use planning process. Table 10 provides a summary of characteristics of sagebrush rangeland needed to help provide productive sage grouse habitat.

Table 10. Characteristics of sagebrush rangeland needed for productive sage grouse habitat (arid site[1]) - Arid Sites Excerpt (Connelly, et al. 2000).

Vegetation Type	Breeding Habitat		Brood-rearing Habitat		Winter Habitat[3]	
	Height (cm)	Canopy (%)[2]	Height (cm)[1]	Canopy (%)[2]	Height (cm)[1]	Canopy (%)[2]
Sagebrush	30-80	15-25	40-80	10-25	25-35	10-30
Grass-forb	>18[2]	≥15	Variable	>15	N/A	N/A

[1]Mesic and arid sites should be defined on a local basis; annual precipitation, herbaceous understory, and soils should be considered (Tisdale and Hironaka 1981, Hironaka et al. 1983).
[2]Grasses and forbs measured as "droop height"; the highest naturally growing portion of the plant.
[3]Values for height and canopy coverage are for shrubs exposed above snow.

Relative to footnote 1 in the table above and the Wyoming vegetation type (an arid site) monitored on the key area transect on the allotment, the guidelines go on to say, "Because of gaps in our knowledge and regional variation in habitat characteristics (Tisdale and Hironaka 1981), the judgment of local biologists and quantitative data from population and habitat monitoring are necessary to implement the guidelines correctly." With this consideration, the following information would help to provide satisfactory sage grouse nesting cover specific to the key area monitoring on the allotment:

Sage Grouse Nesting Cover Studies- Information obtained from a 1994 sage grouse nesting habitat study in Oregon (Gregg et al) indicated that the following factors would help improve sage grouse nesting success:

1) an average of 8-12% shrub canopy (live foliar) cover within the Wyoming big sagebrush vegetation type and 15-20% cover within the basin or mountain big sagebrush vegetation types that averages 16-32 inches in height, and,

2) an average of 18% aerial (canopy) cover of tall genera grasses with height greater than 7 inches.

Sagebrush Grasslands Studies - Winward (1991) found that collective shrub foliar cover of 8-12% for the Wyoming big sagebrush vegetation type and 15-20% for the basin or mountain big sagebrush vegetation types resulted in little competition between sagebrush and herbaceous species. Considering the potential umbrella foliar cover provided by bitterbrush on areas characterized by the big sagebrush-bitterbrush vegetation type, shrub foliar values between 15-30% would likely have the same results. These ranges of shrub foliar cover values specific to vegetation types, coupled with understory perennial herbaceous vegetation that reflects upper mid-seral to late seral ecological status, would help to provide suitable wildlife habitat on native sagebrush rangelands with the a high degree of wildlife forage and cover diversity.

Monitoring data collected in 2010 at key area DS-T-87-22 indicate that, within the unburned portion of the allotment, sage grouse nesting and brood-rearing habitat quality is within appropriate WAFWA guidelines when considering "taller" genera grasses; bottlebrush squirreltail, a "short" genera grass but capable of taller growth on this site; and "tall" forbs present to support height recommendations and foliar cover values for nesting and brooding. Bluebunch wheatgrass, Thurber's needlegrass and Nevada bluegrass had collective canopy cover at 13% and average height at 8.2 inches). Bottlebrush squirreltail and taller forbs had collective canopy cover at 3.3% and average height at 8.15 inches. Sandberg's bluegrass was also a predominant grass species by composition; however, while it helps to provide ground cover, it dries out by mid to late May over most of the allotments at "lower" to "mid" elevations on the Elko District in "normal years" and often is completely cured to near ground level by early summer as part of natural phenological processes. Studies completed in late June 2010, recorded the average droop height of all perennial native herbaceous plants at 6.5 inches on the key study area. The canopy cover for all perennial native grasses and forbs was 28%. Sagebrush foliar cover was 10% with an average height of 21.4 inches. Utilization data collected since 1994 has averaged slight utilization on grass species with the highest utilization recorded at 19%. These percentages indicate that sufficient vegetative cover is available to promote successful nesting during critical periods for sage grouse and migratory birds. Very little cheatgrass was noted on this site with less than 1% composition recorded in 2010.

Sage Grouse Early (Upland) Brood-Rearing Habitat – This habitat is generally in the vicinity of nesting habitat on upland areas with sagebrush as the primary shrub cover. Monitoring data collected in June of 2010 efforts have indicated that the diversity of species, including forbs needed for dietary intake, is satisfactory in comparison to site potential. Herbaceous canopy cover was 28% in 2010 which is within recommended ranges for productive brood-rearing habitat.

Sage Grouse Summer Habitat and Late (Riparian/Meadow) Brood-Rearing Habitat – This habitat is primarily associated with riparian/meadow areas. Lentic riparian habitat (seeps, spring) are present on the Mexican Field Allotment and were stable and well-vegetated and rated as being in PFC . Additionally there is late brood-rearing habitat (wet meadows) present along Cabin Creek and the East Fork of Beaver Creek. Stream and riparian habitat conditions associated with these streams have progressed from poor to excellent improvements since the grazing system was changed in 1994. These conditions would help to provide satisfactory brood-rearing habitat as well as allow the areas to expand and increase in size.

Functioning conditions assessments conducted on the East Fork of Beaver Creek and Cabin Creek within the Mexican Field Allotment show these streams are either in PFC or are functioning-at-risk with an upward trend under current grazing management. In addition, a comparison of important habitat parameters collected as part of BLM's stream survey program show excellent improvement over baseline conditions in response to implementation of the grazing system in 1994. Lentic riparian habitats in the Mexican Field Allotment (including three springs in exclosures and one unfenced spring) were rated as being in PFC.

Sage Grouse Winter Habitat - The shrub foliar cover was 25.4% in 2010; this included 10.2% sagebrush (ave. shrub height 21.4 in.), 15.0% rabbitbrush (shrub height 11.9 in.) and 0.2%

horsebrush (shrub height 10 in.). Shrub foliar cover was within WAFWA's 10-30% values which help provide satisfactory winter habitat for sage grouse (although no measurements were recorded above variable snow cover) on areas that have not been burned. However, these areas only represent a very small portion of the allotment. The majority of the allotment is lacking sufficient cover values for suitable winter habitat.

Mule Deer

Data collected at the key area was analyzed for mule deer habitat using the BLM's WILDIVE program, which calculates a vegetative diversity index based on percent composition and preference for species present at the key area. This information is used along with other factors such as water distribution, vegetative production, percent cover, vertical cover, disturbance or interference factors and browse condition to calculate a habitat condition rating for mule deer.

Livestock control fencing as disturbance or interference factors were also considered. Modifications are needed on the allotment. The facilitation of deer, pronghorn and elk movements under or over livestock control fencing was not considered at the time that fences on the allotment were constructed. Fence hazards on sage grouse seasonal use habitat areas are a concern where modifications to lower heights and other measures to help make the fence outline more visible would help to minimize collision with fence wires while in flight. Measurements and modification of potential fence hazards to BLM specifications that would help to facilitate wildlife movements and minimize collisions have been completed on the Elko District and are a long-term ongoing effort.

"Fair" Mule Deer Habitat Condition ratings were calculated for monitoring completed in 1987 and 1992.

Although plant diversity was limited, habitat for mule deer summer use (5/1 – 10/14) was rated as being in "Good" condition in 2010 with a satisfactory age and form class monitored for bitterbrush. Please refer to Appendix 5 for detailed monitoring information and habitat condition ratings for the Mexican Field Allotment.

4.4 Water Quality Data

The upper East Fork of the Beaver Creek and Cabin Creek are two drainages that flow through the Mexican Field allotment and converge to form the lower East Fork of the Beaver Creek. Cabin Creek and Beaver Creek – including the portion that passes through the Mexican Field Allotment were included in Nevada's 2006 303(d) list of impaired waters (NDEP 2006). Cabin Creek is found to be in exceedence for fecal coliform, water temperature and zinc but at a low total maximum daily load (TMDL) priority. Beaver Creek is listed in exceedence for total dissolved solids, iron, and total phosphorus. This is based on data collected at two monitoring stations located on upper East Fork Beaver Creek and Cabin Creek, respectively, at the Mexican Field Allotment boundary. Water quality measurements at this site do not likely accurately reflect water quality within the allotment; especially considering the fact that the upper East Fork of the Beaver Creek and Cabin Creek are listed in the Nevada's 2006 (d) list of impaired waters. Sample site selection of the upper East Fork of the Beaver Creek and Cabin Creek (Table 11) represent water quality entering the Mexican Field allotment. There are new

data included in the upper and lower East Fork Beaver Creek and Cabin Creek. Water quality data for the two drainages are given in Table 11. Total coliform and temperature readings are high for Class B (nontrout) drainage, but everything else is within the state guidelines. Total coliform values are based on one measurement.

Table 11. Water Quality data for Cabin Creek and East Fork Beaver Creek upstream from Mexican Allotment.

	Cabin Creek (site B)				Upper EF Beaver Creek (Site A)			
	Median	Max	Min	n	Median	Max	Min	n
Flow (CFS)	0.261	2.85	0.0441	12	1.047	8.97	0.2719	14
Water Temp. (°C)	20.4	27.2	13.9	11	20.85	27	14.9	12
pH	8.14	9.22	7.85	12	8.475	8.62	7.97	6
Dissolved Oxygen (mg/L)	7.96	11.33	6.592	11	10.01	12.03	8.05	13
Turbidity. (NTU)	12.35	54.9	2	10	7.75	20.8	2.2	12
Electrical Conductivity (uS/cm)	128	163	108	11	139.7	176	114	13
Nitrate Nitrogen (mg/L)	0.068	1.5	0.02	3	0.066	0.07	0.062	2
Nitrite Nitrogen (mg/L)	0.034	0.034	0.034	1	0.073			1
Total Phosphorus (mg/L)	0.077	0.11	0.055	7	0.06	0.094	0.044	7
Fecal Coliform #/100ml	37.5	2400	12	4	66	166	20	4
Total Coliform#/100ml	2000			1	>2419.6			1
E Coli (#/100 ml)					23	72	3.1	3
Total Dissolved Solids (mg/L)	120	130	110	3	150	150	120	3
Sample Duration	07/10/2006 to 06/14/2011				07/10/2006 to 06/17/2011			

Water quality data from the Lower East Fork of the Beaver Creek (Table 12) represent water quality leaving the Mexican Field Allotment. Water quality data for the lower East Fork Beaver Creek is given in Table 12. The total coliform values and water temperature are higher than the state levels Class B (nontrout); however, total coliform readings are based on one measurement. Continuous water temperature datalogger measurement show that maximum temperature readings were greater than 24 C for 84 days in 2007, 58 days for 2008, 16 days for 2009 and 41 days for 2010. Stream data recently collected for the Lower East Fork of the Beaver Creek shows positive trends for water quality with concentrations for total phosphorus under the State criteria at 0.056 mg/L and fecal coliform at 92 #/100ml, which is below the state level of <200#/100 ml.

Table 12. Water Quality data for East Fork Beaver Creek downstream from Mexican Allotment.

	Lower EF Beaver Creek (downstream)			
	Median	**Max**	**Min**	**n**
Flow (CFS)	1.625	6.8	0.701	10
Water Temp. (°C)	19.68	23.51	10.4	8
pH	8.62	8.75	8.14	8
Dissolved Oxygen (mg/L)	9.355	13.16	8.65	8
Turbidity. (NTU)	9.6	11.6	3.5	7
Electrical Conductivity (uS/cm)	161.45	207	128	8
Total Phosphorus (mg/L)	0.056	0.084	0.048	7
Fecal Coliform #/100ml	92	260	20	4
Total Coliform#/100ml	>2419.6	>2419.6	>2419.6	1
E Coli (#/100 ml)	14	39	11	3
Total Dissolved Solids (mg/L)	150	160	130	3
Sample Duration	07/10/2006 to 09/21/2009			

n= number of samples

5.0 Draft Determinations

This section makes determinations regarding:

A. Progress towards or attainment of the standards for rangeland health,
B. Whether livestock management is in conformance with the guidelines, and
C. Whether existing grazing management or levels of grazing use are significant factors in failing to achieve the standards or conform to the guidelines.

5.1 Standard 1. Upland Sites: Upland sites exhibit infiltration and permeability rates that are appropriate to soil type, climate, and land form.

After reviewing all information, it has been determined that this standard for rangeland health is being Met and livestock grazing management is considered to be in conformance with the guidelines.

Rationale: Interpretation of the existing cover and utilization data, along with recent field observations indicate that this standard is being met. Point cover sampling collected in June 2010 revealed that the total vegetative cover at the key area was 26%. According to the U.S. Natural Resource Conservation Service Nevada site description, the approximate vegetative ground cover of native vegetation appropriate for the ecological site ranges between 30% and 40%.

Utilization level recorded since the 1994 FMUD indicated that use levels have averaged slight use (1-20%). Monitoring data suggests that use levels of key species are adequate to ensure the maintenance of existing herbaceous plant cover needed to stabilize the site.
The key areas is located on a Loamy 10-12" precipitation zone range site. These soils are positioned on fan piedmont remnants. They are moderately deep-to-deep and well drained. The available water capacity is low to moderate and some soils are modified with high volumes of rock fragments through the soil profile. Slope ranges from 2-15%. Runoff is low to moderate and the potential for sheet and rill erosion varies with slope gradient.

Appropriate use levels in conjunction with the appropriate seasons of use have resulted in healthy and vigorous upland vegetation. The vegetation cover required to stabilize soils and ensure appropriate infiltration and permeability rates is being maintained in the Mexican Field Allotment.

5.2 Standard 2. Riparian and Wetland Sites: Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

After reviewing all information, it has been determined that this standard for rangeland health is being Met and livestock grazing management is considered to be in conformance with the guidelines.

Rationale: Both Cabin Creek and the East Fork of Beaver Creek were rated as being in Functional-at-Risk – Upward Trend since 2000 and 2001 respectively. Both are characterized by very stable streambanks densely vegetated with Nebraska sedge. Both stream channels

have narrowed and deepened significantly in recent years as evidenced by photographic comparisons from prior stream surveys. Monitoring indicates grazing levels in some years have precluded willow species from becoming well established, however current grazing management should allow willows to recover to desired levels. Total coliform and temperature readings are high for Class B (nontrout) drainage, but everything else is within the state guidelines

Lentic riparian habitat (seeps, spring and aspen stands) are in excellent condition and all three present in the Mexican Field Allotment were rated as being in PFC. All three areas are protected by exclosure fences and show little recent evidence of livestock impacts. Two of the three spring areas include a complex of several springs. All three sites are stable and well vegetated and assumed to be meeting state water quality criteria. There is essentially no evidence of hummocking, overland flows, or channel downcutting at any of the three sites.

5.3 Standard 3. Habitat: Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species in order to maintain ecological processes. Habitat conditions meet life cycle requirements of threatened and endangered species.

After reviewing all information, it has been determined that this standard for rangeland health is being Met and current livestock grazing management is considered to be in conformance with the guidelines.

Rationale: Grazing management was changed within the allotment as a result of a Multiple Use Decision issued in 1994 from a yearlong grazing system to a four year deferred system with three years of early use (4/15 – 5/31) and one year of hot season use (7/27 – 9/10). The allotment was rested for two years following the Charleston Fire in 2006. Approximately 297 acres were seeded as part of a Watershed Mix on drainage areas with a variety of forbs, grasses and shrubs following the Charleston Fire.

Although monitoring indicates that wildlife habitat values for the unburned portion of the allotment are being maintained for key wildlife species; the majority of the allotment has been impacted by fire.

Habitat conditions for wildlife species which rely on shrubs for a substantial portion of their diet or for vertical structure, including such species as mule deer and other sagebrush obligates including sage grouse (sensitive species), sage thrashers and sage sparrows, have declined in the short to mid-term (5-15 years). Habitat conditions for these species and the prey species of golden eagles and other sensitive and non-sensitive species raptors would expect to improve over time as sagebrush canopy cover and vertical structure returns.

Sage grouse nesting, early (upland) brood-rearing and winter habitat quality is within appropriate WAFWA guidelines on intact sagebrush habitat areas.

As a result of the burns and the change in plant communities from those dominated by sagebrush to a more herbaceous dominated landscape, summer and winter habitat for species such as pronghorn antelope and elk have become more favorable. This trend is expected to moderate and could begin a slow decline in the long term if shrubs become re-established above foliar cover values above those shown under Sagebrush Grasslands Studies (refer to section 4.3).

5.4 Standard 4. Cultural Resources: Land use plans will recognize cultural resources within the context of multiple use.

After reviewing all information, it has been determined that this standard for rangeland health is being Met and livestock grazing management is considered to be in conformance with the guidelines.

Rationale: Based on the evaluation of existing information pertaining to range improvements and grazing, cultural resources are being recognized within the context of multiple use management in the Mexican Field Allotment. Because grazing on public lands requires a permit issued by the BLM, grazing and other associated range activities are considered to be an undertaking and thus requires compliance with Section 106 of the National Historic Preservation Act, as implemented using the Protocol between the BLM and State Historic Preservation Office in Nevada. A 625 acre archaeological reconnaissance conducted in August of 2011 found little evidence that grazing or other grazing improvements were adversely impacting or effecting historic properties within the allotment.

There is unfortunately little baseline data to work with in making determinations of impacts from cattle grazing. However, it is likely that a century and a half of sheep and cattle grazing has adversely affected some archaeological sites. Other impacts to cultural resources may have also occurred as a result of off-road vehicle use, illegal artifact collecting, grazing (by pronghorn, deer, cattle, domestic sheep, and wild horses), and natural erosive forces such as rain, wind, flooding etc. These impacts generally cannot be separated and singled out as a primary impact to cultural resources on a site specific basis. Additionally, regarding domestic cattle and sheep grazing, it is well known that the number and intensity of grazing animals was far greater in the late nineteenth and early twentieth centuries (generally before passage of the Taylor Grazing Act in the 1930's) than the intensity of grazing which occurs today. As a result, impacts to cultural resources generally have lessened over the course of the past 50+ years compared to earlier impacts. It is not feasible to quantify and compare current impacts in order to make judgments regarding the degree of impacts that may go beyond those already inflicted during days of unregulated grazing. Thus, the focus of inventory efforts is placed on site specific project designs in which both the agent of impact and the location of impact are knowable.

Based on the above factors, and considering that (1) there are currently no known significant sites within the allotment that are being negatively impacted by general cattle grazing, and (2) significant sites recorded in the future that lie in the path of proposed earth-disturbing projects related to cattle grazing will be either avoided or mitigated as per the Programmatic Agreement

between the Nevada BLM and SHPO, the BLM has determined that the standard is currently being met.

5.5 Standard 5. Healthy Wild Horse and Burro Populations

The Healthy Wild Horse and Burro Populations standard does not apply to this allotment. There are neither herd management areas nor wild horses or burros within the Mexican Field Allotment.

5.6 Conclusions

Based on the information provided in this document I have determined that the Upland Sites Standard, the Riparian and Wetland Sites Standard, the Habitat Standard and Cultural Resources Standard are being met. I have also determined that the Healthy Wild Horse and Burro Populations Standard is not applicable. Furthermore, I have determined that current livestock grazing is in conformance with the guidelines for rangeland health.

/s/ David Overcast 9/28/11
David Overcast Date
Field Manager
Tuscarora Field Office

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Appendix 1 Wildlife Species List from Nevada Department of Wildlife

Central Elko County - Northeast Nevada – Unit 073 Wildlife Species List

(Sagebrush Steppe, Mountain Brush and Wetland / Riparian Habitats)

Birds

Order: *Gaviiformes* (Diver/Swimmers)

Family: *Gaviidae* (Loons)

Common Loon	*Gavia immer*

Order: *Podicipediformes* (Flat-toed Divers)

Family: *Podicipedidae* (Grebes)

Pied-billed Grebe	*Podilymbus podiceps*
Horned Grebe	*Podiceps auritus*
Eared Grebe	*Podiceps nigricollis*
Western Grebe	*Aechmophorus occidentalis*
Clark's Grebe	*Aechmophorus clarkii*

Order: *Pelecaniformes* (Four-toed Fisheaters)

Family: *Pelecanidae* (Pelicans)

American White Pelican	*Pelecanus erythrorhynchos*

Family: *Phalacrocoracidae* (Cormorants)

Double-crested Cormorant	*Phalacrocorax auritus*

Order: *Ciconiiformes* (Long-legged Waders)

Family: *Ardeidae* (Bitterns, Herons, Egrets)

American Bittern	*Botaurus lentiginosus*
Least Bittern	*Ixobrychus exilis*
Great Blue Heron	*Ardea herodias*
Great Egret	*Ardea alba*
Snowy Egret	*Egretta thula*
Cattle Egret	*Bubulcus ibis*
Green Heron	*Butorides virescens*
Black-crowned Night Heron	*Nycticorax nycticorax*

Family: *Threskiornithidae* (Ibises)

White-faced Ibis	*Plegadis chihi*

Family: *Cathartidae* (New World Vultures)

Turkey Vulture	*Cathartes aura*
California Condor	*Gymnogyps californianus(L.E.)*

Order: *Anseriformes* (Waterfowl)

Family: *Anatidae* (Ducks, Geese, Swans)

Greater White-fronted Goose	*Anser albifrons*
Snow Goose	*Chen caerulescens*
Canada Goose	*Branta canadensis*
Tundra Swan	*Cygnus columbianus*
Wood Duck	*Aix sponsa*
Gadwall	*Anas strepera*
American Wigeon	*Anas americana*
Mallard	*Anas platyrhynchos*
Blue-winged Teal	*Anas discors*
Cinnamon Teal	*Anas cyanoptera*
Northern Shoveler	*Anas clypeata*
Northern Pintail	*Anas acuta*
Green-winged Teal	*Anas crecca*
Canvasback	*Aythya valisinaria*
Redhead	*Aythya americana*
Ring-necked Duck	*Aythya collaris*
Greater Scaup	*Aythya marila*
Lesser Scaup	*Aythya affinis*
Bufflehead	*Bucephala albeola*
Common Goldeneye	*Bucephala clangula*
Barrow's Goldeneye	*Bucephala islandica*
Hooded Merganser	*Lophodytes cucullatus*
Common Merganser	*Mergus merganser*
Red-breasted Merganser	*Mergus serrator*
Ruddy Duck	*Oxyura jamaicensis*

Order: *Falconiformes* (Diurnal Flesh Eaters)

Family: *Accipitridae* (Hawks, Eagles, Osprey)

Osprey	*Pandion haliaetus*
Bald Eagle	*Haliaetus leucocephalus*
Northern Harrier	*Circus cyaneus*
Sharp-shinned Hawk	*Accipiter striatus*
Cooper's Hawk	*Accipiter cooperii*
Northern Goshawk	*Accipiter gentilis*
Swainson's Hawk	*Buteo swainsoni*
Red-tailed Hawk	*Buteo jamaicensis*
Ferruginous Hawk	*Buteo regalis*
Rough-legged Hawk	*Buteo lagopus*
Golden Eagle	*Aquila chrysaetos*

Family: *Falconidae* (Falcons)

American Kestrel	*Falco sparverius*
Merlin	*Falco columbarius*
Gyrfalcon	*Falco rusticolus*
Peregrine Falcon	*Falco perigrinus*
Prairie Falcon	*Falco mexicanus*

Order: *Galliformes* (Chicken Relatives)

Family: *Phasianidae* (Grouse, Partridge)

Chukar	*Alectoris chukar*
Gray Partridge	*Perdix perdix*
Ring-necked Pheasant	*Phasianus colchicus*
Greater Sage-Grouse	*Centrocercus urophasianus*
C. Sharp-tailed Grouse	*T. phasianellus columbianus (L.E.)*

Family: *Odontophoridae* (New World Quail)

California Quail	*Callipepla californica*
Mountain Quail	*Oreortyx pictus*

Order: *Gruiformes* (Cranes and Allies)

Family: *Rallidae* (Rails, Coots)

Virginia Rail	*Rallus limicola*
Sora	*Porzana carolina*
Common Moorhen	*Gallinula chloropus*
American Coot	*Fulica americana*

Family: *Gruidae* (Cranes)

Greater Sandhill Crane	*Grus canadansis tabida*
Lesser Sandhill Crane	*Grus canadansis canadensis*

Order: *Charadriiformes* (Wading Birds)

Family: *Charadriidae* (Plovers)

Black-bellied Plover	*Pluvialis squatarola*
Snowy Plover	*Charadrius alexandrinus*
Semi-palmated Plover	*Charadrius semipalmatus*
Killdeer	*Charadrius vociferus*
Mountain Plover	*Charadrius montanus*

Family: *Recurvirostridae* (Avocets)

Black-necked Stilt	*Himantopus mexicanus*
American Avocet	*Recurvirostra americana*

Family: *Scolopacidae* (Sandpipers, Phalaropes)

Greater Yellowlegs	*Tringa melanoleuca*
Lesser Yellowlegs	*Tringa flavipes*
Solitary Sandpiper	*Tringa solitaria*
Willet	*Catoptrophorus semipalmatus*
Spotted Sandpiper	*Actitus macularia*
Long-billed Curlew	*Numenius americanus*
Marbled Godwit	*Limosa fedoa*
Western Sandpiper	*Calidris mauri*
Least Sandpiper	*Calidris minutilla*
Baird's Sandpiper	*Calidris bairdii*
Long-billed Dowitcher	*Limnodromnus scolopaceus*
Wilson's Snipe	*Gallinago gallinago*
Wilson's Phalarope	*Phalaropus tricolor*
Red-necked Phalarope	*Phalaropus lobatus*

Family: *Laridae* (Gulls, Terns)

Franklin's Gull	*Larus pipixcan*
Bonaparte's Gull	*Larus philadelphia*
Ring-billed Gull	*Larus delawarensis*
California Gull	*Larus californicus*
Caspian Tern	*Sterna caspia*
Forster's Tern	*Sterna forsteri*
Black Tern	*Chlidonias niger*

Order: *Columbiformes* (Pigeons and Allies)

Family: *Columbidae* (Doves)

Rock Dove	*Columba livia*
White-winged Dove	*Zenaida asiatica*
Mourning Dove	*Zenaida macroura*
Eurasian Collared-Dove	*Streptopelia decaocto*
Ringed Turtle-Dove	*Streptopelia risoria*

Order: *Strigiformes* (Nocturnal Flesh Eaters)

Family: *Tytonidae* (Barn Owls)

Barn Owl	*Tyto alba*

Family: *Strigidae* (Owls)

Flammulated Owl	*Otus flammeolus*
Western Screech-Owl	*Otus kennicottii*
Great Horned Owl	*Bubo virginianus*
Snowy Owl	*Nyctea scandiaca*
Northern Pygmy-Owl	*Glaucidium gnoma*
Burrowing Owl	*Athene cunicularia*
Long-eared Owl	*Asio otus*
Short-eared Owl	*Asio flammeus*
Northern Saw-whet Owl	*Aegolius acadicus*

Order: *Caprimulgiformes* (Night Jars)

Family: *Caprimulgidae* (Goatsuckers)

Common Nighthawk	*Chordeiles minor*
Common Poorwill	*Phalaenoptilus nuttallii*

Order: *Apodiformes* (Small Fast Fliers)

Family: *Apodidae* (Swifts)

White-throated Swift	*Aeronautes saxatalis*

Family: *Trochilidae* (Hummingbirds)

Black-chinned Hummingbird	*Archilochus alexandri*
Calliope Hummingbird	*Stellula calliope*
Broad-tailed Hummingbird	*Selasphorus platycercus*
Rufous Hummingbird	*Selasphorus rufus*

Order: *Coraciiformes* (Cavity Nesters)

Family: *Alcedinidae* (Kingfishers)

Belted Kingfisher	*Ceryle alcyon*

Order: *Piciformes* (Cavity Builders)

Family: *Picidae* (Woodpeckers)

Lewis' Woodpecker	*Melanerpes lewis*
Williamson's Sapsucker	*Sphyrapicus thyroideus*
Red-naped Sapsucker	*Sphyrapicus nuchalis*
Downy Woodpecker	*Picoides pubescens*
Hairy Woodpecker	*Picoides villosus*
Northern Flicker	*Colaptes auratus*

Order: *Passeriformes* (Perching Birds)

Family: *Tyrannidae* (Flycatchers)

Western Wood-Pewee	*Contopus sordidulus*
Willow Flycatcher	*Epidonax traillii*
Hammond's Flycatcher	*Epidonax hammondii*
Gray Flycatcher	*Epidonax wrightii*
Dusky Flycatcher	*Epidonax oberholseri*
Cordilleran Flycatcher	*Epidonax occidentalis*
Say's Phoebe	*Sayornis saya*
Ash-throated Flycatcher	*Myiarchus cinerascens*
Western Kingbird	*Tyrannus verticalis*
Eastern Kingbird	*Tyrannus tyrannus*
Scissor-tailed Flycatcher	*Tyrannus forficatus*

Family: *Laniidae* (Shrikes)

Loggerhead Shrike	*Lanius ludovicianus*
Northern Shrike	*Lanius excubitor*

Family: *Vireonidae* (Vireos)

Plumbeous Vireo	*Vireo plumbeus*
Warbling Vireo	*Vireo gilvus*

Family: *Corvidae* (Jays)

Western Scrub-Jay	*Aphelocoma californica*
Clark's Nutcracker	*Nucifraga columbiana*
Black-billed Magpie	*Pica pica*
American Crow	*Corvus brachyrhynchos*
Common Raven	*Corvus corax*

Family: *Alaudidae* (Larks)

Horned Lark	*Eremophila alpestris*

Family: *Hirundinidae* (Swallows)

Tree Swallow	*Tachycineta bicolor*
Violet-green Swallow	*Tachycineta thalassina*
Bank Swallow	*Riparia riparia*
N. Rough-winged Swallow	*Stelgidopteryx serripennis*
Cliff Swallow	*Petrochelidon pyrrhonota*
Barn Swallow	*Hirundo rustica*

Family: *Paridae* (Chickadees, Titmice)

Black-capped Chickadee	*Poecile atricapillus*
Mountain Chickadee	*Poecile gambeli*

Juniper Titmouse *Baeolophus griseus*

Family: *Aegithalidae* (Bushtits)

Bushtit *Psaltriparus minimus*

Family: *Troglodytidae* (Wrens)

Rock Wren *Salpinctes obsoletus*
Canyon Wren *Catherpes mexicanus*
Bewick's Wren *Thyromanes bewickii*
House Wren *Troglodytes aedon*
Winter Wren *Troglodytes troglodytes*
Marsh Wren *Cistothorus palustris*

Family: *Cinclidae* (Dippers)

American Dipper *Cinclus mexicanus*

Family: *Regulidae* (Kinglets)

Golden-crowned Kinglet *Regulus satrapa*
Ruby-crowned Kinglet *Redulus calendula*

Family: *Sylviidae* (Gnatcatchers)

Blue-gray Gnatcatcher *Polioptila caerulea*

Family: *Turdidae* (Thrushes)

Western Bluebird *Sialia mexicana*
Mountain Bluebird *Sialia currucoides*
Townsend's Solitaire *Myadestes townsendi*
Veery *Catharus fuscescens*
Swainson's Thrush *Catharus ustulatus*
Hermit Thrush *Catharus guttatus*
American Robin *Turdus migratorius*
Varied Thrush *Ixoreus naevius*

Family: *Mimidae* (Thrashers, Mockingbirds)

Northern Mockingbird *Mimus polyglottos*
Sage Thrasher *Oreoscoptes montanus*

Family: *Sturnidae* (Starlings)

European Starling *Sturnus vulgaris*

Family: *Motacillidae* (Pipits)

American Pipit *Anthus rubescens*

Family: *Bombycillidae* (Waxwings)

Bohemian Waxwing *Bombycilla garrulus*
Cedar Waxwing *Bombycilla cedrorum*

Family: *Parulidae* (Wood Warblers)

Orange-crowned Warbler *Vermivora celata*
Nashville Warbler *Vermivora ruficapilla*
Virginia's Warbler *Vermivora virginae*
Yellow Warbler *Dendroica petechia*
Yellow-rumped Warbler *Dendroica coronata*
Black-throated Gray Warbler *Dendroica nigrescens*
Townsend's Warbler *Dendroica townsendi*
MacGillivray's Warbler *Oporornis tolmiei*
Common Yellowthroat *Geothlypis trichas*
Wilson's Warbler *Wilsonia pusilla*
Yellow-breasted Chat *Icteria virens*

Family: *Thraupidae* (Tanagers)

Western Tanager *Piranga ludoviciana*

Family: *Emberizidae* (Sparrows, Towhees, Juncos)

Green-tailed Towhee *Pipilo chlorurus*
Spotted Towhee *Pipilo maculatus*
American Tree Sparrow *Spizella arborea*
Chipping Sparrow *Spizella passerina*
Brewer's Sparrow *Spizella breweri*
Vesper Sparrow *Pooecetes gramineus*
Lark Sparrow *Chondestes grammacus*
Black-throated Sparrow *Amphispiza bileneata*
Sage Sparrow *Amphispiza belli*
Savannah Sparrow *Passerculus sandwichensis*
Grasshopper Sparrow *Ammodramus bairdii*
Fox Sparrow *Passerella iliaca schistacea*
Song Sparrow *Melospiza melodia*
Lincoln's Sparrow *Melospiza lincolnii*
White-throated Sparrow *Zonotrichia albicollis*
Harris' Sparrow *Zonotrichia querula*
Gambel'sWhite-crownedSparrow *Zonotrichia leucophrys gambelii*
Mountain W-crowned Sparrow *Zonotrichia leucophrys oriantha*
Golden-crowned Sparrow *Zonotrichia atricapilla*
Dark-eyed Junco*(Oregon)* *Junco hyemalis therburi*
Dark-eyed Junco(*Gray-headed*) *Junco hyemalis caniceps*
Lapland Longspur *Calcarius lapponicus*

Family: *Cardinalidae* (Grosbeaks, Buntings)

Black-headed Grosbeak *Pheucticus melanocephalus*
Blue Grosbeak *Guiraca caerulea*
Lazuli Bunting *Passerina amoena*
Indigo Bunting *Passerina cyanea*

Family: *Icteridae* (Blackbirds, Orioles)

Bobolink *Dolichonyx oryzivorus*
Red-winged Blackbird *Agelaius phoeniceus*
Western Meadowlark *Sturnella neglecta*
Yellow-headed Blackbird *Xanthocephalus xanthocephalus*
Brewer's Blackbird *Euphagus cyanocephalus*
Great-tailed Grackle *Quiscalus mexicanus*
Brown-headed Cowbird *Molothrus ater*
Bullock's Oriole *Icterus bullockii*

Family: *Fringillidae* (Finches, Grosbeaks)

Gray-crowned Rosy-Finch *Leucosticte tephrocotis*
Black Rosy-Finch *Leucosticte atrata*
Cassin's Finch *Carpodacus cassinii*
House Finch *Carpodacus mexicanus*
Red Crossbill *Loxia curvirostra*
Common Redpoll *Carduelis flammea*
Pine Siskin *Carduelis pinus*
Lesser Goldfinch *Carduelis psaltria*
American Goldfinch *Carduelis tristis*

Family: *Passeridae* (Old World Sparrows)

House Sparrow *Passer domesticus*

Mammals

Order: *Insectivora* (Insect Eaters)

Family: *Soricidae* (Shrews)

Merriam's Shrew *Sorex meriammi*
Dusky Shrew *Sorex monticolus*
Vagrant Shrew *Sorex vagrans*
Northern Water Shrew *Sorex palustris*
Preble's Shrew *Sorex preblei*

Order: *Chiroptera* (Bats)

Family: *Vespertilionidae* (Plainnose Bats)

California Myotis *Myotis californicus*
Western Small-footed Myotis *Myotis ciliolabrum*
Long-eared Myotis *Myotis evotis*
Little Brown Bat *Myotis lucifugus*
Fringed Myotis *Myotis thysanodes*

Long-legged Myotis	*Myotis volans*
Yuma Myotis	*Myotis yumanensis*
Western Red Bat	*Lasiurus blossvellii*
Hoary Bat	*Lasiurus cinereus*
Silver-haired Bat	*Lasionycteris noctivagans*
Western Pipistrelle	*Pipistrellus hesperus*
Big Brown Bat	*Eptesicus fuscus*
Townsend's Big-eared Bat	*Corynorhinus townsendii*
Spotted Bat	*Euderma maculatum*
Pallid Bat	*Antrozous pallidus*

Family: *Molossidae* (Freetail Bats)

Brazilian Free-tailed Bat	*Tadarida brasiliensis*

Order: *Lagomorpha* (Pikas, Hares, Rabbits)

Family: *Leporidae* (Hares, Rabbits)

White-tailed Jackrabbit	*Lepus townsendi*
Black-tailed Jackrabbit	*Lepus californicus*
Mountain Cottontail	*Sylvilagus nuttalli*
Pygmy Rabbit	*Brachylagus idahoensis*

Order: *Rodentia* (Rodents)

Family: *Sciuridae* (Squirrels)

Least Chipmunk	*Tamias minimus*
Uinta Chipmunk	*Tamias umbrinus*
Yellow-bellied Marmot	*Marmota flaviventris*
White-tailed Antelope Squirrel	*Ammospermophilus leucurus*
Great Basin Ground Squirrel	*Spermophilus mollis*
Belding's Ground Squirrel	*Spermophilus beldingi*
Wyoming Ground Squirrel	*Spermophilus elegans*
Golden-mantled Ground Squirrel	*Spermophilus lateralis*

Family: *Geomyidae* (Gophers)

Botta's Pocket Gopher	*Thomomys bottae*
Northern Pocket Gopher	*Thomomys talpoides*
Townsend's Pocket Gopher	*Thomomys townsendii*

Family: *Heteromyidae* (Kangaroo Rodents)

Little Pocket Mouse	*Perognathus longimembris*
Great Basin Pocket Mouse	*Perognathus parvus*
Dark Kangaroo Mouse	*Microdipodops megacephalus*

Family: *Heteromyidae* (Kangaroos cont.)

Ord Kangaroo Rat	*Dipodomys ordii*
Chisel-toothed Kangaroo Rat	*Dipodomys microps*

Family: *Castoridae* (Beavers)

American Beaver	*Castor canadensis*

Family: *Cricetidae* (Mice, Rats, Voles)

Western Harvest Mouse	*Reithrodontomys megalotis*
Canyon Mouse	*Peromyscus crinitus*
Deer Mouse	*Peromyscus maniculatus*
Northern Grasshopper Mouse	*Onychomys leucogaster*
Desert Woodrat	*Neotoma lepida*
Bushy-tailed Woodrat	*Neotoma cinerea*
Mountain Vole	*Microtus montanus*
Long-tailed Vole	*Microtus longicaudus*
Sagebrush Vole	*Lemmiscus curtatus*
Muskrat	*Ondatra zibethica*

Family: *Zapodidae* (Jumping Mice)

Western Jumping Mouse	*Zapus princeps*

Family: *Erethizontidae* (New World Porcupines)

North American Porcupine	*Erethizon dorsatum*

Order: *Carnivora* (Flesh-Eaters)

Family: *Canidae* (Dogs)

Coyote	*Canis latrans*
Gray Wolf	*Canis lupus (L.E.)*
Kit Fox	*Vulpes velox*
Red Fox	*Vulpes vulva*

Family: *Ursidae* (Bears)

Black Bear	*Ursus americanus*

Family: *Procyonidae* (Racoons and Allies)

Ringtail	*Bassariscus astutus*
Common Raccoon	*Procyon lotor*

Family: *Mustelidae* (Weasels and Allies)

Short-tailed Weasel	*Mustela erminae*
Long-tailed Weasel	*Mustela frenata*
Mink	*Mustela vison*
Wolverine	*Gulo gulo (L.E.)*
Northern River Otter	*Lontra canadensis*
American Badger	*Taxidea taxus*
Striped Skunk	*Mephitis mephitis*
Western Spotted Skunk	*Spilogale gracilis*

Family: *Felidae* (Cats)

Mountain Lion	*Felix concolor*
Lynx	*Lynx lynx (L.E.)*
Bobcat	*Lynx rufus*

Order: *Artiodactyla* (Hoofed Mammals)

Family: *Cervidae* (Deer)

Rocky Mountain Elk	*Cervus canadensis*
Mule Deer	*Odocoileus hemionus*

Family: *Antilocapridae* (Pronghorn)

Pronghorn	*Antilocapra americana*

Family: *Bovidae* (Bison, Sheep, Goats)

Rocky Mountain Bighorn Sheep	*O. c. Canadensis (L.E.)*

Reptiles

Order: *Squamata* (Lizards, Snakes)

Family: *Iguanidae* (Iguanas and Allies)

Common Zebra-tailed Lizard	*Callisaurus draconoides*
Long-nosed Leopard Lizard	*Gambelia wislizenii*
Desert Spiny Lizard	*Sceloporus magister*
Western Fence Lizard	*Sceloporus occidentalis*
Sagebrush Lizard	*Sceloporus graciosus*
Side-blotched Lizard	*Uta stansburiana*
Greater Short-horned Lizard	*Phrynosoma hernadesi*
Desert Horned Lizard	*Phrynosoma platyrhinos*

Family: *Scincidae* (Skinks)

Western Skink	*Eumeces skiltonianus*

Family: *Teiidae* (Whiptails)

Western Whiptail	*Cnemidophorus tigrus*

Family: *Boidae* (Boas, Pythons)

Rubber Boa	*Charina bottae*

Family: *Colubridae* (Solid-toothed Snakes)

Ringneck Snake	*Diadophis punctatus*
Striped Whipsnake	*Masticophis taeniatus*
Western Yellow-bellied Racer	*Coluber constrictor mormon*
Great Basin Gopher Snake	*Pituophis cantenifer deserticola*
Common Kingsnake	*Lampropeltis getulus*
Long-nosed Snake	*Rhinocheilus lecontei*
Western Terrestrial Garter	*Thamnophis elegans*

Ground Snake	*Sonora semiannulata*
Night Snake	*Hypsiglena torquata*

Family: *Viperidae* (Vipers)

Great Basin Rattlesnake	*Crotalus viridis lutosus*

Amphibians

Order: *Anura* (Frogs and Toads)

Family: *Pelobatidae* (Spadefoots)

Great Basin Spadefoot Toad	*Spea intermontana*

Family: *Ranidae* (True Frogs)

Columbia Spotted Frog	*Rana luteiventris*
Northern Leopard Frog	*Rana pipiens*
Bullfrog	*Rana catesbeiana*

Family: *Bufonidae* (Toads)

Western Toad	*Bufo boreas*

Family: *Hylidae* (Treefrogs)

Pacific Chorus Frog	*Pseudacris regilla*

Fish

Order: *Salmoniformes*

Family: *Salmonidae* (Salmon and Trout)

Chinook Salmon	*Oncorhynchus tshawytscha(L.E.)*
Rainbow Trout	*Oncorhynchus mykiss*
Redband Trout	*Oncorhynchus mykiss gairdneri*
Lahontan cutthroat trout	*Oncorhynchus clarki henshawi*
Brook Trout	*Salvelinus fontinalis*
Mountain Whitefish	*Prosopium williamsoni*
Brown Trout	*Salmo trutta*

Order: *Scorpaeniformes*

Family: *Cottidae* (Sculpins)

Paiute Sculpin	*Cottus beldingii*
Mottled Sculpin	*Cottus bairdii*

Order: *Cypriniformes*

Family: *Cyprinidae* (Carps and Minnows)

Chiselmouth	*Acrocheilus alutaceus*
Northern Pikeminnow	*Ptychochelus oregonensis*
Longnose Dace	*Rhinicthys cataractae*
Speckled Dace	*Rhinicthys osculus*
Redside Shiner	*Richrdsonius balteatus*
Tui Chub	*Gila bicolor*
Asiatic Carp	*Cyprinus carpio*

Family: *Catastomidae* (Suckers)

Bridgelip Sucker	*Catostomus columbianus*
Mountain Sucker	*Catostomus platyrhynchus*
Tahoe Sucker	*Catastomus tahoensis*

Order: *Siluriformes*

Family: *Ictaluridae* (Catfish)

Channel catfish	*Ictalurus punctatus*

Order: *Perciformes*

Family: *Centrarchidae* (Bass and allies)

Largemouth Bass	*Micropterus salmoides*
Smallmouth Bass	*Micropterus dolomieu*
Bluegill	*Lepomis macrochirus*
Crappie	*Pomoxis nigromaculatus*

L.E. = Locally Extirpated

Note: This list is a combination of wildlife sight record data and our best effort to predict what wildlife species live in this area in all seasons and under optimum habitat conditions.

*With the exception of the European Starling, House Sparrow, Eurasian Collared-Dove,Ringed Turtle-Dove and Rock Dove, all birds are protected in Nevada by either the International Migratory Bird Treaty Act, Endangered Species Act or as game species. Several mammal, reptile, amphibian and fish species are also protected as either game, sensitive, threatened or priority species. For further information on a species status, visit our web site at *NDOW.ORG.*

Updated: 9/2011 - Peter V. Bradley - Nevada Department of Wildlife - Elko, Nevada.

Appendix 2 Migratory Birds by Habitat Type

Aspen	Montane Shrub	Montane Riparian
Obligates**: None Other**: Northern Goshawk Calliope Hummingbird Flammulated Owl Lewis's Woodpecker Red-naped Sapsucker Mountain Bluebird Orange-crowned Warbler MacGillivray's Warbler Wilson's Warbler Other Associated Species*** Cooper's Hawk Northern Flicker Hermit Thrush Yellow-rumped Warbler Long-eared Owl	Obligates: None Other: Black Rosy Finch Black-throated Gray Warbler Calliope Hummingbird Cooper's Hawk Loggerhead Shrike Blue Grosbeak Vesper Sparrow MacGillivray's Warbler Orange-crowned Warbler Swainson's Hawk Western Bluebird	Obligates: Wilson's Warbler MacGillivray's Warbler Other: Cooper's Hawk Northern Goshawk Calliope Hummingbird Lewis's Woodpecker Red-Naped Sapsucker Orange-crowned Warbler Virginia's Warbler Yellow-breasted Chat Other Associated Species Warbling Vireo Broad-tailed Hummingbird Fox Sparrow Blue Grouse
Cliffs and Talus	**Sagebrush**	**Lakes (Playas)******
Obligates: Prairie Falcon Black Rosy Finch Other: Ferruginous Hawk Other Associated Species Golden Eagle White-throated Swift Say's Phoebe Common Raven Cliff Swallow Violet-green Swallow Canyon Wren Rock Wren	Obligates: Sage Grouse Other: Black Rosy Finch Ferruginous Hawk Gray Flycatcher Loggerhead Shrike Vesper Sparrow Prairie Falcon Sage Sparrow Sage Thrasher Swainson's Hawk Burrowing Owl Calliope Hummingbird Other associated species: Brewer's Sparrow Western Meadowlark Black-throated Sparrow Lark Sparrow Green-tailed Towhee Brewer's Blackbird Horned Lark Lark Sparrow	Obligates (PIF-listed as Wetlands/Lakes): White-faced Ibis Snowy Plover American Avocet Black Tern Other (PIF-listed as Wetlands/Lakes): Sandhill Crane Long-billed Curlew Short-eared Owl Other Associated Species (Wetlands/Lakes) American bittern Great Egret Snowy Egret Cattle Egret Black-crowned Night Heron Marsh Wren Common Yellowthroat Yellow-headed Blackbird

** "Obligates" are species that are found only in the habitat type described in the section. [Habitat needed during life cycle even though a significant portion of their life cycle is supported by other habitat types]

** "Other" are species that can be found in the habitat type described the Nevada Partners in Flight Bird Conservation Plan.

**** Other Associated (Wetlands/Lakes) Species are predominately associated with wetlands where emergent aquatic vegetation provides cover and foraging areas. Otherwise, snow pond/playas/manmade reservoirs could provide some seasonal habitat for some of the species shown.

Some of these migratory bird species are also designated as BLM Sensitive Species.

Appendix 3 Federally Listed & Candidate Species

BLM policy (516 DM 6840) defines special status species to include:

- Federally Threatened or Endangered Species: Any species that the U.S. Fish and Wildlife Service has listed as an endangered or threatened species under the Endangered Species Act throughout all or a significant portion of its range.
- Proposed Threatened or Endangered Species: Any species that the Fish and Wildlife Service has proposed for listing as a federally endangered or threatened species under the Endangered Species Act.
- Candidate Species: Plant and animal taxa that are under consideration for possible listing as threatened or endangered under the Endangered Species Act.
- BLM Sensitive Species: Species 1) that are currently under status review by the U.S. Fish and Wildlife Service, 2) whose numbers are declining so rapidly that Federal listing may become necessary; 3) with typically small and widely dispersed populations; or 4) that inhabit ecological refugia or other specialized or unique habitats.
- State of Nevada Listed Species: State-protected animals that have been determined to meet BLM's Manual 6840 policy definition.

FEDERALLY-LISTED THREATENED and ENDANGERED SPECIES and CANDIDATE SPECIES

COMMON NAME	SCIENTIFIC NAME
Federally-Listed Endangered Species	
None	None
Federally-Listed Threatened Species	
None	None
Federally-Proposed Threatened or Endangered Species	
None	None
Federally-Listed Candidate Species	
Greater Sage Grouse	Centrocercus urophasianus

Greater Sage Grouse Terminology

Active - a lek that had two or more birds present during at least one of three or more visitations in a given breeding season. For a strutting ground to attain this status it must also have had two or more birds present during at least two years in a five-year period (Connelly et al. 2003).

Inactive - a lek that has been surveyed three or more times during one breeding season with no birds detected during the visitations and no sign observed on the lek. If a lek is only visited once during a breeding season and was surveyed under adequate conditions and no birds were observed at the location during the current and the previous year and no sign was observed at the lek, then an inactive status can be applied to the lek.

Unknown - a lek that may not have had birds present during the last visitation, but could be considered viable due to the presence of sign at the lek. This designation could be especially useful when weather conditions or observer arrival at a lek could be considered unsuitable to observe strutting behavior. The presence of a single strutting male would invoke the classification of the lek as unknown. A lek that was active in the previous year, but was inadequately sampled (as stated above) in the current year with no birds observed could also be classified as unknown.

Appendix 4 Nevada BLM Sensitive Mammals

COMMON NAME	SCIENTIFIC NAME
Nevada BLM Sensitive Mammal Species	
Pygmy rabbit	*Brachylagus idahoensis*
Preble's shrew	*Sorex preblei*
Small-footed myotis	*Myotis ciliolabrum*
Long-eared myotis	*Myotis evotis*
Long-legged myotis	*Myotis volans*
Spotted bat	*Euderma maculatum*
Fringed myotis	*Myotis thysanodes*
Yuma myotis	*Myotis yumanensis*
Townsend's big-eared bat	*Plecotus townsendiii*

Preble's shrew - Preble's shrews are found in Nevada primarily in riparian habitat. Riparian areas on the allotment provide potential habitat.

Bats

The cliffs, talus, shallow caves; rock crevices (including those surrounding some of the vegetated playas); trees; ephemeral, intermittent and perennial drainages, and mine shafts and adits provide potential bat roost sites on the allotment. Foraging areas are provided on the uplands in the area where use could occur in concert with use on natural or artificially impounded water, drainage areas and riparian areas.

Small-footed myotis -- This bat species could occur in the allotment. Roosting occurs primarily in caves or mine shafts or adits which potentially occur in or near the area.

Long-eared myotis -- This bat species is relatively common throughout northeastern Nevada and could occur in the area. This bat has also been reported to be found within a variety of habitats.

Long-legged myotis -- This bat species uses a variety of sites for roosting and could potentially inhabit the area.

Spotted bat -- Suitable habitat could occur in the area. Roosting sites include rock crevices on steep cliff faces which exist in the area.

Fringed myotis -- This bat species is uncommon in the Great Basin. Shallow caves along the East Fork Beaver Creek and on the surrounding mountains could provide roosting habitat.

Yuma myotis - A record of this bat species occurring in northeast Nevada was noted as of the 2002 Nevada Bat Conservation Plan. Therefore, there is potential for this species to exist on the area. This species utilizes caves and rock crevices for roosting. These features exist in the area; however, the availability and suitability of caves is not known.

Townsend's big-eared bat – This species generally requires caves for roosting. The availability and suitability of caves on the allotment is not known.

Nevada BLM Sensitive and State of Nevada-Listed Birds

COMMON NAME	SCIENTIFIC NAME
Bald Eagle	*Haliaetus leucocephalus*
Golden Eagle	*Aquila chrysaetos*
Northern goshawk	*Accipiter gentalis*
Prairie Falcon	*Falco mexicanus*
American peregrine falcon	*Falco peregrinus*
Swainson's Hawk	*Buteo swainsoni*
Ferruginous Hawk	*Buteo regalis*
Burrowing Owl	*Athene cunicularia*
Long-eared owl	*Asio otus*
Short-eared Owl	*Asio flammeus*
Loggerhead Shrike	*Lanius ludovicianus*
Black-rosy Finch	*Leucosticte atrata*
Vesper Sparrow	*Poocetes gramineus*
Yellow-breasted chat	*Icteria virens*
Lewis' woodpecker	*Melanerpes lewis*
State of Nevada-Listed Species	
Osprey	*Pandion haliatus*
White pelican	*Pelecanus erythrorhynchos*
White-faced ibis	*Plegadis chihi*

Raptors

Bald Eagle -- On July 9, 2007, it was announced that the bald eagle has been removed (de-listed) from the list of threatened and endangered species. BLM is coordinating with the NDOW to ensure compliance with state regulations regarding the bald eagle. As of August 30, 2007, BLM policy is to consider the bald eagle as a BLM Sensitive Species.

After de-listing, bald eagles would continue to be protected under the Bald and Golden Eagle Protection Act (BGEPA), as amended, and the Migratory Bird Treaty Act. Both of these laws prohibit killing, selling or otherwise harming eagles, their nests, or their eggs. In June 2007, the US Fish and Wildlife Service clarified its regulations implementing the BGEPA and published the National Bald Eagle Management Guidelines. The US Fish and Wildlife Service is in the process of establishing a permit program under the BGEPA that would authorize limited take of bald and golden eagles consistent with the purpose and goal of the BGEPA. The Service has also prepared a post-delisting bald eagle monitoring plan.

Bald eagles may use the area due to suitable habitat for foraging primarily during the winter period or during migration. Suitable habitat on uplands, irrigated lands and riparian areas is widely dispersed over tens of thousands of acres with primary use occurring during the winter period or as a migrant throughout the Elko District.

Northern goshawk – The allotment has suitable nesting and may be an/occasional winter visitor.

Prairie Falcon -- The allotment provide nesting (primarily cliff areas) and foraging habitat for this species where prey species are primarily small mammals. Black-tailed jackrabbits provide a primary forage base.

American peregrine falcon -- This species is considered to be a potential migrant on the area with use of suitable habitat for foraging. There are no known nest sites on the allotment or adjoining allotments.

Swainson's Hawk -- Rock ledges or deciduous trees such as species of willows along the East Fork Beaver Creek or quaking aspen and cottonwood stands on Stag Mountain to the east on the adjoining Stag Mountain Allotment

provide primary nesting habitat. It is unknown if any nesting use or foraging occurs on the allotment. Swainson's hawks were documented by BLM and NDOW personnel on the Pole Creek area on the Stag Mountain Allotment on July 22, 2011. The variety of habitat on the area, as shown for migratory birds, provide foraging habitat during the summer period and during migration or seasonal movement events.

Ferruginous Hawk – This species was documented a few miles south of the allotment east of the East Fork Beaver Creek on June 23, 2010. In Nevada, this species prefers to nest in scattered juniper woodlands that are found on the edge of salt desert shrub or sagebrush vegetation types overlooking broad valleys. Juniper woodlands do not exist on the area. They could also nest on the top of tall sagebrush/other shrubs, rock outcrops, manmade structures or on deciduous trees such cottonwoods. Tall sagebrush/other shrubs could be defined as shrubs existing at about six feet in height or higher, out of the reach of potential ground-dwelling predators such as coyotes. Shrubs at this height could occur on some loamy bottom areas on the HMAs. Otherwise, the area provides foraging habitat during migration or seasonal movement events. Black-tailed jackrabbits and ground squirrels provide a forage base.

Burrowing Owl - Abandoned mammal burrows, such as those created by badgers, help to provide nesting habitat. This species tends to use disturbed or open sites with minimal vegetation for nesting and loafing, such as recent burned areas or areas near troughs, corrals, or livestock mineral licks where open terrain exists. This may be due to the lack of vegetation at these sites that allows increased visibility from the burrow entrance.

Long-Eared Owl – This species could potentially utilize older age class willows in riparian areas as nesting habitat. Foraging areas are provided in these same riparian areas as well as surrounding uplands.

Short-Eared Owl - The area provides nesting and documented foraging habitat for this ground-nesting species.

Other Sensitive Avian Species

Loggerhead Shrike – Potential nesting habitat is provided in the area primarily by basin and Wyoming big sagebrush. Foraging habitat is provided on sagebrush-grass areas with variable canopy cover of brush species. Loggerhead shrikes have been observed with an active nest with nestlings in the crown of a Wyoming big sagebrush plant on the area.

Vesper Sparrow – This species is a ground-nester. It is associated with sagebrush grasslands on the area. The area provides potential nesting and foraging habitat.

Black-rosy Finch – The area provides suitable winter habitat on sagebrush grasslands.

Yellow-breasted chat – Riparian areas with tree cover provide foraging and nesting habitat for this species.

Lewis' woodpecker - Riparian areas with tree cover provide foraging and nesting habitat for this species. Quaking aspen stands and adjoining uplands and riparian habitat would provide the primary habitat for this species.

State of Nevada-Listed Species

(No known habitat for osprey, white-faced ibis or white pelicans.)

Appendix 5 Wildlife Data Summary Table

TRANSECT DS–T-87-22 Mexican Field DATE MONITORED	BIG GAME HABITAT CONDITION RATING	KEY BROWSE CONDITION PUTR (antelope bitterbrush)			RELATIVE SPECIES COMPOSITION			Absolute % Perennial Native Herbaceous Plant Cover, and Ave. Droop Height in Inches			SHRUB FOLIAR COVER/ and Shrub Height	LIMITING FACTORS/ REMARKS
		Age Class	Form Class	Utilization	Shrubs	Grasses	Forbs	basal	aerial	droop height		
LOAMY 10-12" Precipitation Zone Ecological Site – Wyoming Big Sagebrush Vegetation Type. Mexican Field Allotment												
July 7-9, 1987	**"FAIR"**	**Satisfactory**	**Unsatisfactory**	**>70%**	**82%**	**14%**	**4.0%**	**3.3%**	**No data**	No data	**8% ARTRW 7% CHVI 15%** 13 in.	**The relative composition of grasses was low for this site at 14% . The potential for this site is approximately 65% grass composition. Forb composition was 4% with the potential being 10%. No cheatgrass was noted in the transect. The shrub composition was high for this site at 82% ; the potential vegetative composition for shrubs at this site is 25%.**
August 12-14, 1992	**"FAIR"**	**Unsatisfactory**	**Satisfactory**	**47%**	**94%**	**5%**	**<1%**	**1%**			**10% ARTRW 7% CHVI 17%** **8.3 in.**	**The relative composition of grasses and forbs were low at 5% and <1% respectively. No cheatgrass was noted in the transect. Shrub composition is high.**
August 29,	**Rating not available –**	Satisfactory	Satisfactory	**31%**	**No Data**	**No Data**	**No Data**	**No Data**			**8% ARTRW**	**Fence modifications needed. Current five-**

TRANSECT DS–T-87-22 Mexican Field DATE MONITORED	BIG GAME HABITAT CONDITION RATING	KEY BROWSE CONDITION PUTR (antelope bitterbrush)			RELATIVE SPECIES COMPOSITION			Absolute % Perennial Native Herbaceous Plant Cover, and Ave. Droop Height in Inches			SHRUB FOLIAR COVER/ and Shrub Height	LIMITING FACTORS/ REMARKS
		Age Class	Form Class	Utilization	Shrubs	Grasses	Forbs	basal	aerial	droop height		
2002	Only shrub canopy cover was taken along the line intercept										10% CHVI 18%	strand to BLM-spec four-strand.
June 23, 2010	"GOOD"	Satisfactory	Satisfactory	No Data recorded due to active growth	70%	24%	6%	9.5%	28%	6.5 in.	ARTRW 10.2% CHVI8 15% TECA 0.2% Ave. Height: ARTRW 21.4 in. CHVI8: 11.9 in. TECA: 10.3 in.	Fence modifications needed. Current five-strand to BLM-spec four-strand.

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